

Attorney Docket No.: PTQ-0037
Inventors: Van Eyk et al.
Serial No.: 09/934,297
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1: (previously amended) A method of separating a mixture of proteins in a biological fluid sample comprising:

(a) substantially denaturing albumin in said biological fluid sample, wherein said biological fluid sample is mixed with a solution comprising a sulfhydryl reducing agent, an anionic detergent, and at least one detergent selected from the group consisting of an ionic detergent, a non-ionic detergent and a zwitterionic detergent, at concentrations sufficient to substantially denature albumin in the mixture; and:

(b) subjecting the mixture of biological sample and solution to a separation technique to separate proteins in the mixture.

Claim 2: (original) The method of claim 1 further comprising characterizing the separated proteins.

Claim 3: (original) The method of claim 2 wherein the separated proteins are characterized by Western blot.

Claim 4: (original) The method of claim 1 wherein the

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biological sample comprises serum.

Claim 5: (original) The method of claim 1 further comprising heating the mixture from step (a) prior to separation in step (b).

Claim 6: (original) The method of claim 5 wherein the mixture is boiled.

Claim 7: (original) The method of claim 1 wherein said separation technique is performed using SDS-PAGE.

Claim 8: (original) The method of claim 1 wherein the anionic detergent is sodium dodecyl sulfate.

Claim 9-28: (canceled)

Claim 29: (previously added) The method of claim 1, wherein the biological sample comprises plasma.

Claim 30: (previously added) The method of claim 1, wherein the biological sample comprises urine.

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Claim 31: (previously added) The method of claim 1, wherein the biological sample comprises amniotic fluid.

Claim 32: (previously added) The method of claim 1, wherein the biological sample comprises cerebrospinal fluid.

Claim 33: (previously added) The method of claim 1, further comprising diluting said mixture of biological sample and solution prior to said separating step.

Claim 34: (previously added) The method of claim 1, wherein said separation technique is affinity-based.

Claim 35: (previously added) The method of claim 1, wherein said separation technique comprises chromatography.

Claim 36: (previously added) The method of claim 35, wherein said chromatography is high performance liquid chromatography (HPLC).

Claim 37: (previously added) The method of claim 1, wherein at least one protein of said mixture of proteins is contacted

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with an antibody thereto.

Claim 38: (previously added) The method of claim 1, wherein at least one protein of said mixture is contacted with a first antibody thereto, and said first antibody is contacted with a second antibody to the first antibody.

Claim 39: (previously added) The method of claim 2, wherein said characterizing step identifies at least one protein associated with myocardial damage.

Claim 40: (previously added) The method of claim 2, wherein said characterizing step identifies at least one protein associated with skeletal muscle damage.

Claim 41: (previously added) The method of claim 2, wherein said characterizing step comprises fluorescence detection.

Claim 42: (previously added) The method of claim 2, wherein said characterizing step comprises colorimetric detection.

Claim 43: (previously added) The method of claim 2, wherein

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said characterizing step comprises radiodetection.

Claim 44: (previously added) The method of claim 2, wherein said characterizing step comprises detection using radiographic film.

Claim 45: (previously added) The method of claim 2, wherein said characterizing step comprises detecting enzyme activity.

Claim 46: (previously added) The method of claim 45, wherein said enzyme activity is horseradish peroxidase activity.

Claim 47: (previously added) The method of claim 45, wherein said enzyme activity is alkaline phosphatase activity.

Claim 48: (previously added) The method of claim 8, wherein said sodium dodecyl sulfate is present in a concentration of from about 5 mM to about 150 mM.

Claim 49: (previously added) The method of claim 1, wherein said zwitterionic detergent is at least one detergent selected CHAPS and a N-alkyl-N,N-dimethylammonio-1-propanesulfonate.

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Claim 50: (previously added) The method of claim 1, wherein said zwitterionic detergent is CHAPS, at a concentration of from about 5 mM to about 50 mM.

Claim 51: (previously added) The method of claim 1, wherein said non-ionic detergent is at least one detergent selected from Ipegal CA-360, Triton X-100, Triton X-114, n-octyl-glucoside, digitonin, Tween, Tween 20, Tween 80, and saponin.

Claim 52: (previously added) The method of claim 1, wherein said non-ionic detergent is Ipegal CA-360, in an amount of from about 0.2 % to about 4 %.

Claim 53: (previously added) The method of claim 1, wherein said sulfhydryl reducing agent is at least one agent selected from dithiothreitol, dithioerythritol, and β -mercaptoethanol.

Claim 54: (previously added) The method of claim 1, wherein said sulfhydryl reducing agent is dithiothreitol, at a concentration of from about 5 mM to about 150 mM.

Claim 55: (previously added) The method of claim 1, wherein

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said solution further comprises urea.

Claim 56: (previously added) The method of claim 55, wherein
said urea is present at a concentration of from about 0.2 M to
about 4 M.